

AMENDMENTS TO THE ABSTRACT

Please cancel the Abstract section of the specification and replace with the following:

A method of decoding low-density parity-check codes comprises a first step that includes calculating LlR_{ml} , for each parity check equation, at iteration $i-1$, in response to a third step. A second step includes decision aided equalizing, at iteration i , in response to the first step. The third step includes calculating LlQ_{lm} , for each parity check equation, at iteration i in response to the second step, wherein LlQ_{lm} represents information from bit node l to equation node m , one for each connection, and wherein LlR_{ml} represents information from equation node m to bit node l , one for each connection.